

## Emflon<sup>®</sup> PFW Sterile Air Membrane Cartridges

### High Capacity Sterile Air Membrane Cartridges

The Pall Emflon PFW Final Air Filters are designed for fermenter inlet air and exhaust venting, sterile process air and sterile venting of tanks in food processes.

#### Description :

- Pall PTFE membranes
- Inherently hydrophobic
- High flow / low pressure drop
- 100% of bacteria retention, at 0.2  $\mu\text{m}$ , in liquids and gases
- Virus retentive in gases
- Melt-sealed construction
- Enhanced steaming resistance
- 100% Forward Flow tested
- Water intrusion testable
- ISO 9000 Certified Quality System



#### Materials

- Meets FDA requirements for food contact use as detailed in 21CFR 170-199
- Membranes: double layer PTFE
- Support/Drainage: Polypropylene, oxidation resistant
- Core/Cage/End Caps/Adapters: Polypropylene, oxidation resistant
- Code 7 adapter with encapsulated stainless steel reinforcing ring
- O-rings: silicone<sup>1</sup>

#### Removal Ratings

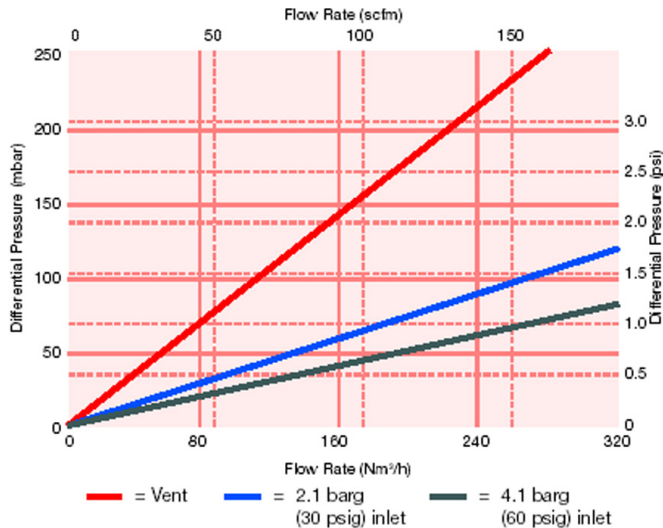
- Air/Gases: >0.003  $\mu\text{m}$ , particulate<sup>2</sup>
- Liquids: 0.2  $\mu\text{m}$ , sterilizing<sup>3</sup>

<sup>1</sup> Other polymers available.

<sup>2</sup> By NaCl CNC particle analysis. Also retains 100% of *Brevundimonas diminuta* bacteria, bacteriophage and virus aerosols.

<sup>3</sup> Lot samples of assemblies retain >10<sup>7</sup> cfu/cm<sup>2</sup> of *Brevundimonas diminuta* in liquid per mod. ASTM F838-83 and FDA guidelines.

## Typical Air Flow Rates\*



\* Typical initial clean medium  $\Delta P$  per 254 mm (10 in.) element, air at 20°C (68°F). For multi-element cartridges, divide pressure drop by number of 254 mm (10 in.) elements. Non-linear cartridge turbulence factors are incorporated into housing pressure drop values. For complete assembly pressure drop, add filter cartridge medium value to housing value at specified flow rate. For gases other than air or nitrogen, contact your local Pall distributor.

**Note:** Curve labels denote inlet pressures.

## Integrity Test Values

Per 254 mm (10 in.) Cartridge:<sup>4</sup>

- Forward Flow (air test gas):

60:40 IPA : Water wet (v:v)  $\leq$  15 cc/min at 1040 mbar (15 psi)

## Part Numbers/Ordering Information

FA71RPFWH4	254 mm (10 in.)
FA72RPFWH4	508 mm (20 in.)
FA73RPFWH4	762 mm (30 in.)

**Note:**

For sizing filters or other information, please contact your local Pall distributor.

**Specifications and Availability:** The information provided is a guide to the part number structure and possible options. Product availability may be subject to change without notice. All specifications are nominal. This literature was reviewed for accuracy at the time of publication. For current information on the products and test methodologies, consult your local Pall distributor.

## Configurations (AB Code 7)<sup>4</sup>

- Single open ended
- Double 226 O-ring adapter
- Finned end, bayonet lock.

## Dimensions (nominal)

- Lengths: 254 mm (10 in.), 508 mm (20 in.), 30 in. (762 mm)
- Diameter: 70 mm (2.75 in.)

## Filter Area (nominal)

- 0.8 m<sup>2</sup> (8.6 ft<sup>2</sup>) per 254 mm (10 in.) element

## Operating Conditions

Max. Differential Pressure/Temp<sup>5</sup>:

- 5.3 bar<sup>8</sup> (77 psid) at 20°C (68°F)
- 4.1 bar (60 psid) at 80°C (176°F)

Typical Continuous Air Service Life<sup>6</sup>:

- 12 months to 60°C (140°F)

Typical Vent Service Life:

- 6 months to 80°C (176°F)

## Autoclave/Steaming

- Cumulative Steaming Time<sup>7</sup>: 165 hrs (1hr cycles) to 140°C (284°F)
- Max. Forward Steaming Conditions:  
1.0 bard<sup>8</sup> (14.5 psid) at 125°C (257°F)  
0.3 bard (4.4 psid) at 142°C (287.6°F)
- Max. Reverse Steaming Conditions:  
0.5 bard (7.3 psid) at 125°C (257°F)  
0.2 bard (3.0 psid) at 142°C (287.6°F)

<sup>4</sup> Contact Pall for multi-element values.

<sup>5</sup> In air/N<sub>2</sub> service or other compatible gases.

<sup>6</sup> For continuous air flow above 60°C, Emflon PFW filters are recommended. Emflon PFW can be operated at higher temperatures for shorter time periods.

<sup>7</sup> Lab tests to establish multi-cycle resistance. Filters should be qualified in actual use. Contact Pall for recommended procedures.

<sup>8</sup> 1 bar = 100 kPa



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